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UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

REPORT OF THE BOISE BASIN EXPERIMENTAL FOREST
BANNOCK CREEK DIVISION

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Introduction

The Bannock Creek Division of the Boise Basin Experimental Forest comprised the entire experimental forest, when it was established in 1933. For this reason the Bannock Creek Forest, as it will be referred to hereafter, was organized as a unit complete in itself.

The forest was authorized primarily as a demonstration and experimental area for research in forest management, soil erosion and other forest and range problems. The preliminary work to prepare the forest for these studies consisted of several transit surveys and an intensive timber survey of the area. Three transit surveys were made on the area; (1) a traverse of the external boundaries of the forest, (2) a traverse of Bannock Creek within the forest, which was used both to locate the creek and as a base control for the timber survey, and (3) a line survey of the south lines of sections 8, 9 and 10 within the forest, also used as a base control on the timber survey. The timber survey consisted of collection of data sufficient for a 20 percent cruise of all forested lands and a drainage, topographic and forest type map.

The results of this survey are available in a series of maps and tables. A sample print of each map and the originals of all tables are in the Experiment Station files at Ogden, Utah. A survey

control plat, topographic, forest type and management subdivision map are included.

Three sets of tables, all compiled from the original cruise sheets have been prepared. The first set consists of one table for each 10-acre block or part of a block, within each compartment and forest type division; showing both the stand and board foot volume tallied actually and the estimated total stand and volume, for the area represented by the table. These stands and volumes are classified by breast high diameter 6-inch classes for all species and by Dunning's tree classes for ponderosa pine. The second set consists of a table for each compartment on atlas size tabulation paper. Each table shows the estimated total stand and board foot volume, arranged by 6-inch diameter classes within each Dunning's tree class by types and 10-acre blocks. The third set, copies of which accompany this report, is a summary of these other tables by compartments and forest types.

This report is designed to present a comprehensive picture of the Bannock Creek Forest, based on survey data and personal observations. An effort is made to present information which will aid to learn what has been done on the forest, what needs to be done and what could be done, time and money permitting, with suggestions as to what places on the forest this work could be carried out most advantageously.

The Bannock Creek Forest has a total area of 3,328 acres, 2,426 acres or 73 percent of which is forested with merchantable and potentially merchantable timber. Of the remaining 902 acres, 77 support unmerchantable timber, 600 support a protection timber type, 29 support aspen and 196 are covered with brush.

The value of this forest will come through its continued use over a long period of time. The greatest threat to this continued use is fire. If at any time in the next several decades fire should sweep over the forest an enormous investment in time and money would be lost. In 1931 and 1934 the Boise Basin was the scene of large destructive fires. The two largest of these fires burned forest land that was comparable in many ways to Bannock Creek and its adjacent drainages, indicating the potential hazard to which this area is subjected.

Bannock Creek is the middle one of three parallel drainages. Pine Creek is on the west and Granite Creek is on the east. To the south Thorn Creek runs east and west across the heads of the Bannock and Pine Creek drainages. The north part of the forest is adjoined by lower Bannock Creek.

Granite Creek was cut over in 1929, lower Bannock Creek in 1933 and Pine Creek in 1934. The slash and trash from these cuttings is still on the ground and particularly in the case of Pine and lower Bannock Creeks is in a highly inflammable condition during the dry summer months. The real danger from fire is in these outside areas where the fire could start, gain headway and sweep

on into the Bannock Creek forest itself. During severe blow-up conditions such as occurred in 1931 and 1934 it is possible that no artificial barriers could stop the advance of fire but certainly in ordinary years fire breaks on the tops of ridges would go a long way toward assuring safety for the forest.

The Granite Creek front is the least dangerous for several reasons. First, the timber when logged was utilized to a small top diameter, 8 to 10 inches; second, a large part of the slash was burned in a fire during the summer of 1930; third, the wide band of protection and brush types on the Bannock Creek side of the ridge form a natural barrier to severe surface fires, and fourth, the prevailing winds are from the west. A narrow fire break, 8 to 10 feet wide, cleared of all vegetation and scraped to mineral soil should protect this side of the forest.

Thorn Creek, although not cut-over, is dangerous because of the nature of its forest cover. A large portion of the drainage has been burned over a number of years ago. These burns are at present a tangle of down timber and heavy brush. Most of the remaining timber is lodgepole and fir which is favorable to hot forest fires. These conditions are somewhat offset by the fact that to get into Bannock Creek a fire must cross a high brushy ridge and then run down steep slopes at the head of Bannock Creek. Another 8 to 10-foot break with occasional wider sections should be good protection on this ridge.

Pine Creek is the most hazardous front for several reasons. First, the slash is very heavy due to an economic utilization method of logging which left tops in the woods with diameters as large as 20 to 30 inches--in some cases even larger; second, a large number of lightning fires occur in Pine Creek; third, the ridge between Bannock and Pine Creeks is low and completely forested, and fourth, the prevailing winds are from the west. A fire break to protect this side of the forest should be wide and well built. A break with the following minimum specifications is to be recommended: all brush and trees to be removed and destroyed from a strip 50 feet wide; all snags, mistletoed firs or any tree with large low-hanging branches to be removed from a strip 250 feet wide, that is, 100 feet on each side of the cleared 50 feet; and in the center of the break a strip 8 to 10 feet wide scraped to mineral soil.

Lower Bannock Creek is in much the same condition as Pine Creek with its heavy slash and lack of natural barriers to protect the experimental forest. A fire break near the north boundary of the experimental forest, following convenient ridges across the drainage and built to the same specifications as that recommended for the Pine Creek ridge break should protect the forest from fires originating in lower Bannock Creek.

These fire breaks do not protect the forest from fires starting inside the boundaries. Past history shows that lightning causes few fires in Bannock Creek, but occasionally man-caused fires do occur. A few breaks on ridge tops inside the forest would divide the

forest into units and help prevent fires from spreading from one unit to another. Breaks 8 to 10 feet wide could be cheaply constructed and should serve the purpose adequately. Recommended locations for these would be: the ridge dividing West Bannock Creek from Bannock Creek, following compartment lines M/N, M/O and L/O; and across the Bannock Creek drainage on compartment lines J/K and D/E.

The cost of these fire breaks, at first thought, may seem high, but considering that they would assure the safety of many valuable experiments, the cost becomes reasonable.

The Boise National Forest maintains a lookout on Bald Mountain a few miles south and well above the Bannock Creek forest, assuring reasonably prompt detection of fires. The only other fire protection improvements that have been made afe the burning of some of the Pine Creek slashings and clearing of a roadside fire break 100 feet wide from the mouth of Bannock Creek to the point in the forest where the road leaves the creek bottom. The slash burning was a national forest project and the roadside clearing done by a C.W.A. crew. It may be significant that in the summer of 1934, two fires were started near the road inside the forest and that both were brought under control before getting beyond the clearing.

Insects are not a serious problem on the Bannock Creek Forest. The common bark bettle (Dendroctonus brevicomis) is present in the forest but its activity is confined to the killing of a few trees

each year; usually old and unhealthy individuals. There is evidence, however, that at some time in the past, 20 to 30 years ago, there may have been epidemics of this insect. This evidence is in the form of dead and down trees that are particularly numerous in certain localities or strips, extending within well-defined limits east and west across the drainage. To prevent the recurrence of an epidemic and to hold the "normal damage" to a minimum, some control work was done in the spring of 1934. The entire forest was cruised and all infested trees were marked. These marked trees were felled, the bark peeled and burned in pits. A total of 62 trees were treated in this manner, including 10 trees in Pine Creek on the Pine-Bannock Creek ridge. Treating few trees over such a large area is very expensive and except in the event of a noticeable increase in insect activity, additional control work will be unnecessary.

Two permanent projects were initiated on the Bannock Creek forest in 1934. One of these is in connection with forest influence studies of the Experiment Station and the other a forest management study in stand improvement.

The forest influence study is located on the protection and brush types in compartment E and consists of two erosion areas that have been fenced in for protection from livestock grazing. Each area is about 11 acres in size and includes one entire minor drainage. There is a retaining wall dam, with facilities for measuring surficial and seepage run-off, at the mouth of each drainage. Batteries of lysimeters and weather observation stations are located

near these erosion areas. A cabin and spring development are located on the road just below the dams. An investment of over $14,000.00 has already been made on this project.

Forest stand improvement work has received considerable attention during the last two years, 1933 and 1934, due to the Government's emergency relief program which has provided an abundance of labor. The need for knowledge of costs and of the effectiveness of various methods, in thinning ponderosa pine reproduction, led to the establishment of a series of permanent thinning plots on the forest in 1934. These plots are located in low gradient draws on compartment L, just south of the section line. The reproduction is dense and as nearly uniform in size as is usually found in ponderosa pine. The overstory of over-mature pine is widely spaced so that the crown canopy gives some protection from wind and snow but does not over-shade the site. Before any thinning was done, all dead trees and snags were felled and left on the ground with the possibility of later removal for fuel wood.

Five $2\frac{1}{2}$-acre blocks were laid out in such a manner as to take advantage of the most uniform stands of reproduction. Each block is divided into 5, 1/2-acre plots. Five treatments are used for the plots, each block being treated by all five methods, on plots selected at random. The treatments are: clear-cut 10 foot spacing, crop tree 10 foot spacing, crop tree 15 foot spacing, crop tree 20 foot spacing and one untreated check plot. In addition to the blocks, isolation strips were thinned, making the total area

treated over 15 acres. These plots are easily accessible from the road, about 5 minutes walk, and will be of interest to anyone visiting the forest.

This thinning or stand improvement is a valuable piece of work from an experimental and demonstration standpoint, but any future large scale improvement operations must be carefully and cautiously planned, at least until the overstory of mature timber has been removed in logging operations.

The thinning of young stands and reproduction is difficult to justify economically in a relatively slow growing forest. The material removed has no market value and so the costs remain as a fixed investment for a number of years. There is another form of stand improvement, however, that can be applied to the Bannock Creek forest, which will pay for itself and may return a substantial profit. This is the removal of dead, dying and poorly formed trees. Idaho City, 4 miles northwest of the forest, has an annual cord wood consumption of several hundreds of cords. This market is being supplied at the present time by local woodcutters who take the wood wherever it can be found close to roads. (A considerable quantity has been removed from Bannock Creek since the construction of the road in 1933.) By using these same woodcutters for labor, during off-seasons, such as early spring and late fall, they would be benefited by receiving regular wages and the consumers would receive their fuel at the same prices as before. Any surplus over the local demand could be shipped or hauled to Boise and a ready

market, 45 miles away. The easily accessible compartments, A, B, C, D, K, L and M, would furnish enough fuel wood for several years' consumption, and the growing stock on these compartments would be immeasurably benefited by the removal of this material.

The greatest value of this experimental forest, aside from such intangible values as recreational, demonstrational and esthetical, will be as a proving ground for forest management problems in sustained yield and logging methods for ponderosa pine stands in central Idaho. These pine stands have been drawn upon for local use for the last 50 years and more, although it is just since 1912 that large companies have been operating for the export trade. During the 23 years since 1912 a large part of the forest capital in mature timber has been removed and what does remain is being eaten into at a rapid rate each year.

These cut-over lands are largely marginal and submarginal for any use except the growing of trees. It is up to foresters and the Experiment Station staff particularly to find some way that these lands can be put in a productive condition and succeeding in that, kept productive. Another problem, equally as important is to prevent the uncut forest from reaching the low state of productivity found on most of the cut-over forest. The Bannock Creek forest has 1,975 acres of forest land and 35,563,314 board feet of merchantable timber which can be used to show that sustained yield is possible and profitable in Idaho.

A small portable mill, set up on the Bannock Creek forest, to be operated a few months each year when local labor is not absorbed by other work, would not only be profitable to the Forest Service but be of inestimable value in demonstrating what can and should be done to preserve the ponderosa pine forests for future use.

81.4 percent of the forested area on the Bannock Creek forest is typed as ponderosa pine/over-mature (pp/om) and 67.30 percent of the total merchantable board feet volume of ponderosa pine is classed as Dunning's tree class 5. This indicates that the net annual increment on the forest is far below the maximum procurable on this land. A cutting program on the forest would not only have demonstration value but is necessary if the forest is to be kept in a vigorous growing condition.

The cutting might be contracted to a private operator to work under strict supervision of the Experiment Station staff. There are several objections to this method, a few of which are: (1) the difficulty of getting a private operator to do an ideal job even under the strictest supervision; (2) the fact that there is no private operator in the vicinity at present, and (3) that if there were one available the doubt that he could afford to contract a job calling for only a few month's work a year. This leaves the Experiment Station the alternative already mentioned of doing its own operating, letting the local community derive its benefit in wages paid to workers during otherwise slack seasons of the year.

The entire stand on the Bannock Creek forest is all aged. This obviates some form of selection cutting. Due to the large proportion of over-mature trees, the first cut on this forest will necessarily be heavy, probably several times the net increment expected in the future. After the first cut, however, the annual cut will not exceed the net annual increment. This means that the operation, after the first cutting, will probably cover a large area per thousand board feet cut. A portable mill, moved to cut skidding distances to a minimum, will allow even this type of logging to be done at a profit.

Definite mill sites are difficult to designate until management plans have been drawn up. However, it will be noted that the compartments are laid out in such a manner that all skidding from the entire compartment will converge at one point on the main creek. By continuing the existing road on up Bannock Creek to the common corner of compartments F, G and H and constructing a road on the west fork of Bannock Creek to compartment line N/O there would be no reason to ever set the mill off of a good trucking road. If these roads were built the maximum skidding distance for any compartment would be about 1,000 yards. The topography is steep enough so that horse skidding could be employed satisfactorily and yet is not too steep for tractor work. Tractor power will undoubtedly prove more satisfactory in the long run because of the probable intermittent character of the work.

Another working set-up that would merit consideration in management plans would be to establish a small stationary mill at the mouth of Bannock Creek or in Idaho City. The logs would then be skidded to the road and truck-hauled to the mill. Some of the advantages of this plan are: (1) a stationary mill would saw better quality lumber; (2) the power unit could be used for finishing machinery such as planers; (3) the waste from the mill would be kept out of the forest; (4) the cost of moving the mill would be eliminated; and (5) permanent cover could be built to protect the machinery during idle periods. There are also disadvantages such as: (1) a larger initial investment; (2) more handling of the logs between the woods and the mill; and (3) the necessity of buying trucks which might be eliminated with a portable outfit.

Artificial reforestation, usually tree planting, plays a part in the administration of most managed forests. Before launching any planting program three questions should be answered. Is this unstocked area more valuable for tree growing than any other use? Are the soil, situation and other conditions favorable for tree growth? What species of tree will be most likely to succeed on this site?

The area in question, on the Bannock Creek forest, is the 565.0 acres of brush and pine protection type that form a strip of varying width in compartments A, B, C, D and E between the top of the Granite Creek ridge and timber line. This land at the present time is practically nonproductive, although a few cattle

derive a meager existence from the rapidly diminishing forage during the summer months. The previously mentioned forest influences project occupies slightly over 22 acres on compartment E. There are tentative plans for more projects of this sort in the future, but even though all these plans materialize there will still be a good many acres that should be growing trees.

Repeated fires some time in the past seem to be the best explanation of the barrenness of these slopes. The soil is decomposed granite, similar to all soil in the Boise Basin. The ponderosa pine--protection sapling type already supports a scattered stand of young pines. These trees are poorly formed due to the sparse stand in which they are growing, but in spite of this they are healthy and vigorous, with no signs of any trees dying either from lack of water or nutrition. The excavations for the dams on the forest influences project uncovered pieces of charred logs indicating that at one time even the pure brush areas supported large trees. There is also evidence that the mature forests in the creek and draw bottoms are slowly advancing to restock these slopes. In most cases, between the overmature stands and the open areas, there is a strip of immature or sapling forest. In some cases both of these appear.

This evidence supports the belief that planting this area to ponderosa pine seedlings would actually be aiding nature to reforest, and for that reason have a reasonable chance of success.

A management plan for the Bannock Creek forest, to be properly drawn, requires a fair knowledge of the important features of

each of the 15 compartments.

Compartment A contains 109.9 acres of forest land and 28.8 acres of protection land, a total of 138.7 acres. This is the smallest and most accessible compartment on the forest. It is the only compartment that had ever been disturbed by man prior to the establishment of the forest. When lower Bannock Creek was logged in 1932 a wide tractor skidding road was torn out beside and at times in the creek that forms the compartment drainage.

Compartment B contains 121.3 acres of forest and 74.1 acres of protection land for a total of 200.4 acres. The 38.8 acres of ponderosa pine--merchantable mature timber (pp/mm) is the only large tract of good merchantable mature timber on the forest. This 38.8 acres as well as the 8.5 acres on compartment A cruise a greater board foot volume per acre than the over-mature timber on the same compartments. Compartment B shows the best evidence of the progression from over-mature forest in the creek bottom, through merchantable-mature and immature to the protection forest on the higher slopes.

Compartment C has 137.2 acres of protection and brush lands with 132.4 acres of forest land for a total of 269.6 acres. All of the timber in this compartment lies on slopes that drop directly into Bannock Creek with the exception of one long draw that is forested almost to the top of the Granite Creek ridge. The 14.7 acres of Douglas fir--immature timber, at the head of this draw, is the only stand of young, rapidly growing fir on the forest.

Compartment D contains 154.8 acres of protection and brush land and only 134.9 acres of forested land, totaling 289.7 acres. The over-mature pine on this compartment has a higher volume per acre than that on any other compartment. The large, comparatively level ravine just south of compartment C has what is probably the best stand to be found on the forest. One tree has a breast high diameter of 70 inches and a total height of over 150 feet. Numerous other trees are over 40 inches D.B.H. and have heights of 170 feet and over. These large trees are well scattered and the intervening spaces are occupied with fast-growing trees of all ages. In this ravine and for no apparent reason is one patch, about 2 acres in size, of 40 to 60 year old reproduction that has been entirely killed by an insect infestation. This killing took place 6 to 8 years ago, and where the insects came from or what happened to them after one or two seasons' work is unknown.

Compartment E is slightly larger than any other compartment, except K, with a total area of 296.5 acres. Only 108.5 acres are forested, however, the remaining 188.0 acres being in brush, protection and unmerchantable types. The forested area on this compartment is very similar in quality to that on compartment D. Some of the creek bottom stands, very closely approach the best found on D. One tree just south of the road and about 200 yards from Bannock Creek is 71 inches in diameter, breast high. Some pp-om type on this compartment and also some on compartment F is classed as unmerchantable, either because it is inaccessible for logging or

because of the poor form of the trees. The forest influence project is located in this compartment and probably any additional projects along these lines will also be located here. The four compartments, B, C, D and E have an exceptionally large volume per acre for Idaho pine stands. This is easily explained in the fact that almost all of the mature timber on these compartments is growing in creek bottoms and ravines.

Compartment F has 84.9 acres of forest land and 61.9 acres of protection brush and unmerchantable timber and totaling 146.8 acres. This compartment runs into slightly steeper slopes and a much more brushy type of forest than the others on the east side of Bannock Creek, but is otherwise quite similar.

Compartment G, lying as it does at the headwaters of Bannock Creek, is valuable chiefly as a watershed protection. It contains 95.0 acres of merchantable forest and 95.4 acres of unmerchantable and brush land. The Douglas fir unmerchantable forest is classed as unmerchantable because almost every mature tree is infected with mistletoe or heartrot or both. A large portion of the merchantable stand of fir is also infected with one or both of these defects. As long as fir has a low value at the sawmill, this largest part of this compartment cannot be profitably logged. A cutting plan for the forest probably should not include this compartment at all. To make use of the pine, on the pp-om type, at the lower or north end of the compartment, this type could be included in compartment F. This would bring the total volume for F more nearly comparable to

the other compartments and overcome the difficulty of making the largest part of compartment G fit into the plan.

Compartment H and I are so similar that they are just as well treated together. H has 153.8 acres of forest land and 9.4 acres of aspen and brush land. I has 126.1 acres of forest land and 14.6 acres of protection and aspen land. These two compartments have the steepest slopes and the most shallow and rocky soil on the forest. There is some good saw timber in the over-mature fir but even here there is a great deal of mistletoe and heartrot. The fir stands as a whole are stagnated, in fact some areas have every appearance of going backwards, that is the mortality is greater than the growth. There is very little reproduction except in occasional patches. The mature trees should unquestionably be cut, but extreme care must be exercised so as not to expose the site too severely. There is a possibility that on this shallow soil a heavy cut might, by exposing the site to sun and erosion, cause irreparable damage. The best method would be to cut a small area the first year, probably using a shelterwood method of cutting, and see how the site reacted. The lower levels of these compartments particularly the flats along Bannock Creek, support excellent pine timber with plentiful reproduction.

Compartment J with 208.7 acres of forest land and 81.8 acres of protection, aspen and brush land has more waste area than any other compartment. The 74.1 acres of protection supports a very few scattered pines with heavy clumps of brush (Amelanchier,

Ceanothus and Salix) occupying most of the area. There are no signs that this land ever supported a stand of timber and the soil is so dry, shallow and gravelly that it is doubtful if planting would be successful. Most of the merchantable pine timber is good but a lot of it is short with numerous heavy limbs.

Compartment K with its 372.1 acres of forest land and 37.4 acres of protection and aspen land for a total of 409.5 acres, is the largest compartment by more than 100 acres. The protection and aspen types are confined to the ridge tops leaving the slopes and ravines to good stands of timber. The high ridge on the east side of the compartment effectively cuts off any short outlets to Bannock Creek, making it necessary to skid all logs down to the north corner of the compartment. If the stationary mill set-up is used it will pay to construct a short truck trail into this compartment.

Compartment L has only 12.8 acres of protection, aspen and brush land, with 160.4 acres forested land. The good stands of advance reproduction are the important feature of this compartment. As previously mentioned the stand improvement plots are located in some of this reproduction.

Compartment M has a total area of 185.1 acres, all of which is over-mature pine forest. This is one of the more accessible compartments, being adjacent to the present road. The two compartments L and M are the best cordwood chances at the present time.

Compartment N is also entirely forested with over-mature pine timber. The area is 261.4 acres. This compartment takes in the

south or lower half of the West Bannock Creek drainage. If the recommended road up this creek is constructed, N will be one of the most accessible and best demonstration compartments. The per acre volume of 13,963 board feet of pine and 1,626 board feet of fir, is very nearly the average for the forest and the stand is uniformly well stocked, with good advance reproduction.

Compartment O with 172.3 acres of forest land and .9 acre of brush land is somewhat similar to N. It takes in two ravines at the head of West Bannock Creek and on this account and because of the fact that it is at the head of the drainage, the topography is slightly steeper and more broken. Also the quality of the timber is a little poorer near the ridge tops.

The Bannock Creek forest as a whole is typical of ponderosa pine forests in central Idaho. There is a good stand of all aged pine with a fair mixture of Douglas fir. The forest is particularly fortunate in having an abundance of advance reproduction. There are a few areas where reproduction is scarce, but in the event of logging a few well-placed seed trees should take adequate care of these places.

The amount of defect in the standing timber is best approximated by referring to other comparable stands in the Boise Basin area which have been logged. On Moore's Creek, Pine Creek, and Elk Creek, all within a radius of 6 miles from Bannock Creek, a considerable number of long butts for cat-face were left in the woods. The number of logs or trees culled for heart or any other

kind of rot were negligible, however. For example, during the cruise of Pine Creek only one culled tree and one culled 32-foot log were observed. Several long-butts for cat-face were seen but all were sound except for some dense pitch, and with better utilization would all have been taken out. Clark Miles in 1931 made measurements for defect in ponderosa pine and Douglas fir on a logging operation at Beaver Creek near Cascade, Idaho. He found that there were no cull trees in pine and only 4 trees in 100 in fir. A total cull percent of 6.77 for pine and 8.77 for fir was indicated by this study. These figures include all losses in logging as well as defects. The loss from breakage is the largest single deduction, amounting to 2.66 percent in pine and 1.21 percent in fir. There is no reason to believe that the defect in Bannock Creek will exceed these figures and by the use of care in logging and close utilization of the tree, it should be considerably reduced. For lack of more accurate data a cull percent of 5 percent for pine and 6 percent for fir applied to the gross scale should be a liberal allowance for all defect on the Bannock Creek forest.

Conclusion

A very brief excursion over any of the cut-over forest lands in central Idaho will convince the observer of the real need for the practice of some form of forest management. A study of the few figures available will also convince the student that central Idaho pine will, under optimum conditions, produce enough timber per acre within a reasonable period of time to make permanent yield practicable.

The only way to prove to the private as well as the public owner that a managed forest can be sustained with profit, is to actually demonstrate the fact with a managed forest. The Forest Service in the Bannock Creek forest has a tract of typical Idaho virgin pine forest set aside for research in problems of forest management.

This report has attempted to show that this Bannock Creek forest can be put on a managed basis with profit both to the Forest Service as operator and to the immediate community as the source of labor.

In this case, as is the case with the majority of demonstration projects, the initial investment in fire-breaks, roads and other improvements is necessarily high. But, as soon as large tracts of forest are properly managed, keeping the amount of undergrowth, slash and dead material to a minimum, the fire danger will be so lessened as to make numerous large firebreaks unnecessary. A large part of the roads and road-side clearings would be eliminated, where the forest was purely commercial and not developed primarily for demonstration.

The government is the only agency that can afford to absorb these additional costs, and then only if the project has a reasonable chance of being successful.

There is enough mature timber and young growing stock in Bannock Creek to assure a small annual crop for an indefinite period. If the recommended firebreaks are built and the national forest

continues to provide detection facilities, the forest is comparatively safe from destruction by fire. The forest is easily accessible to the public as well as the forester. There is a market for any products produced. Local communities will provide ample labor for carrying on the work. And as already stated, the successful administration of this forest will be of inestimable value to the remaining virgin forest and to the future forests that will inhabit the now unproductive cut and burned over lands. This area also is an ideal, centralized location for innumerable smaller but none the less important projects, some of which have already received mention.

There seems little doubt that to develop the Bannock Creek forest as a managed forest is a project worthy of all the effort, time and money that the Experiment Station can make available.

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(Stand per Acre by D. B. H. 6" Classes, Ponderosa pine only 28)
(Stand per Acre by D. B. H. 6" Classes, D. fir and total pine & fir 29)
Volume B. M. by Dunnings Tree Classes 30)
Volume B. M. per Acre by Dunnings Tree Classes 31
(Volume B. M. by D. B. H. 6" Classes for Ponderosa pine only 32)
(Volume B. M. by D. B. H. 6" Classes for D. fir and total pine & fir 33)
(Volume B. M. per Acre by D. B. H. 6" Classes for P. pine only 34)
(Volume B. M. per Acre by D. B. H. 6" Classes for D. fir and total)
(pine and fir 35)

NOTE: Tables #1 to #21 inclusive include percentage figures for all totals.

Table 1. Areas of merchantable timber types. Boise Basin Experimental Forest, Bannock Cr. Division

Comp't	Area in Acres: Ponderosa Pine OM	MM	IM	Sap.	Douglas Fir OM	MM	IM	Sap.	Total	Total Percent
A	93.2	8.5	5.2	3.0					109.9	4.5
B	29.0	38.8	53.5						121.3	5.0
C	80.7		37.0				14.7		132.4	5.5
D	95.7		28.2			11.0			134.9	5.6
E	103.9			4.6					108.5	4.5
F	81.0				3.9				84.9	3.5
G	46.8				48.2				95.0	3.9
H	75.1				74.7			4.0	153.8	6.3
I	88.2				33.6			4.3	126.1	5.2
J	165.8				42.9				208.7	8.6
K	344.3	27.8							372.1	15.3
L	153.7							6.7	160.4	6.6
M	185.1								185.1	7.6
N	261.4								261.4	10.8
O	171.4								171.4	7.1
TOTAL:	1975.3	75.1	123.9	7.6	203.3	11.0	14.7	15.0	2425.9	100.0
% Total:	81.4	3.1	5.1	.3	8.4	.5	.6	.6	100.0	

Table 2. Areas of Unmerchantable and Protection Types. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area in Acres						Total	Merch. Types	Grand Total	% Total	% Grand Total
	PP/OM Un.	PP/Pr.Sap	DF/OM Un.	DF/Pr.Sap	Asp	Br.					
A		28.8					28.8	109.9	138.7	3.19	4.17
B		79.1					79.1	121.3	200.4	8.77	6.02
C		125.0				12.2	137.2	132.4	269.6	15.21	8.10
D		115.8				39.0	154.8	134.9	289.7	17.16	8.70
E	13.1	87.1		9.8		78.0	188.0	108.5	296.5	20.84	8.91
F	6.0	37.5		1.1		17.3	61.9	84.9	146.8	6.86	4.41
G			57.5			37.9	95.4	95.0	190.4	10.58	5.72
H					2.8	6.6	9.4	153.8	163.2	1.04	4.90
I		3.3			11.3		14.6	126.1	140.7	1.62	4.23
J		74.1		3.7	.8	3.2	81.8	208.7	290.5	9.07	8.74
K		27.3			10.1		37.4	372.1	409.5	4.14	12.30
L		7.7			3.7	1.4	12.8	160.4	173.2	1.42	5.20
M								185.1	185.1		5.56
O						.9	.9	171.4	172.3	.10	5.18
TOTAL	19.1	585.7	57.5	14.6	28.7	196.5	902.1	2425.9	3328.0	100.00	100.00
% of TOTAL	2.12	64.93	6.37	1.62	3.18	21.78	100.00				
% of G.TOTAL							27.11	72.89	100.00		

Table 3. Summary of Volume B. M. by Compartments and Types. Boise Basin Experimental Forest, Bannock Cr. Division. Cruised - 1933-34.

Comp't.	Type	Area	B. M. Pine	B. M. Fir	Per Acre Pine	Per Acre Fir	Total B. M. Both Species	B.M. Per Acre Both Species
A	PP/OM	93.2	1,291,753	218,810	13,860	2,348	1,510,563	16,208
	PP/MM	8.5	139,728	50,120	16,439	5,896	189,848	22,335
	PP/IM	5.2	54,054		10,395		54,054	10,395
	PP/Sap	3.0	288	860	96	287	1,148	383
	TOTAL	109.9	1,485,823	269,790	13,520	2,455	1,755,613	15,975
B	PP/OM	29.0	297,397	14,602	10,255	504	311,999	10,759
	PP/MM	38.8	478,700		12,338		478,700	12,338
	PP/IM	53.5	745,281	12,270	13,930	229	757,551	14,160
	TOTAL	121.3	1,521,378	26,872	12,542	221	1,548,250	12,764
C	PP/OM	80.7	1,297,022	281,437	16,072	3,487	1,578,459	19,560
	PP/IM	37.0	233,253	26,493	6,304	716	259,746	7,020
	DF/IM	14.7	14,547	38,356	990	2,609	52,903	3,599
	TOTAL	132.4	1,544,822	346,286	11,668	2,615	1,891,108	14,283
D	PP/OM	95.7	1,977,698	86,221	20,666	901	2,063,919	21,567
	PP/IM	28.2	305,401	4,906	10,830	174	310,307	11,004
	DF/MM	11.0	51,089	25,838	4,644	2,349	76,927	6,993
	TOTAL	134.9	2,334,188	116,965	17,303	867	2,451,153	18,170
E	PP/OM	103.9	1,717,238	322,055	16,528	3,100	2,039,293	19,627
	PP/Sap	4.6	1,334		290		1,334	290
	TOTAL	108.5	1,718,572	322,055	15,839	2,968	2,040,627	18,808

Table 3. (Continued)

Comp't.	Type	Area	B. M. Pine	B. M. Fir	Pine Per Acre	Fir Per Acre	Total B. M. Both Species	B.M. Per Acre Both Species
F	PP/OM	81.0	1,161,878	342,216	14,344	4,225	1,504,094	18,569
	DF/OM	3.9		33,337		8,548	33,337	8,548
	TOTAL	84.9	1,161,878	375,553	13,685	4,424	1,537,431	18,109
G	PP/OM	46.8	333,712	232,562	7,131	4,969	566,274	12,100
	DF/OM	48.2	89,569	672,927	1,858	13,961	762,496	15,819
	DF/OM Un	*57.5		*414,014		7,200	*414,014	7,200
	TOTAL	95.0	423,281	905,489	4,456	9,531	1,328,770	13,987
H	PP/OM	75.1	798,606	399,110	10,634	5,314	1,197,716	15,948
	DF/OM	74.7	119,296	807,825	1,597	10,814	927,121	12,411
	DF/Sap	4.0						
	TOTAL	153.8	917,902	1,206,935	5,968	7,847	2,124,837	13,815
I	PP/OM	88.2	705,439	432,509	7,998	4,904	1,137,948	12,902
	DF/OM	33.6	116,295	512,758	3,461	15,261	629,053	18,722
	DF/Sap	4.3						
	TOTAL	126.1	821,734	945,267	6,516	7,496	1,767,001	14,012
J	PP/OM	165.8	1,792,071	718,684	10,809	4,335	2,510,755	15,143
	DF/OM	42.9	107,320	424,194	2,502	9,888	531,514	12,390
	TOTAL	208.7	1,899,391	1,142,878	9,101	5,476	3,042,269	14,577
K	PP/OM	344.3	4,241,975	1,060,410	12,321	3,080	5,302,335	15,400
	PP/MM	27.8	87,374	45,446	3,143	1,635	132,820	4,778
	TOTAL	372.1	4,329,349	1,105,856	11,635	2,972	5,435,155	14,607

* Not included in any total.

Table 3. (Continued)

Com't.	Type	Area	B. M. Pine	B. M. Fir	Pine Per Acre	Fir Per Acre	Total B. M. Both Species	B.M. Per Acre Both Species
L	PP/OM	153.7	1,578,046	254,532	10,267,	1,656	1,832,578	11,923
	DF/Sap	6.7		8,542		1,275	8,542	1,275
	TOTAL	160.4	1,578,046	263,074	9,838	1,640	1,841,120	11,478
M	PP/OM	185.1	2,076,265	446,783	11,217	2,414	2,523,048	13,631
N	PP/OM	261.4	3,649,855	425,102	13,963	1,626	4,074,957	15,589
O	PP/OM	171.4	1,728,799	473,118	10,086	2,760	2,201,917	12,847
Total all Comp'ts		2,425.9	27,191,283	8,372,031	11,209	3,451	35,563,314	14,660
PP/Om on all Comp'ts		1,975.3	24,647,754	5,708,155	12,480	2,890	30,355,909	15,370

Table 4. Stand Table. Totals for all Types by Compartments. Boise Experimental Forest, Bannock Cr. Division.

Comp't.	Area in Acres	Duning's Tree Classes for Pine I	II	III	IV	V	VI	VII	Total	D. Fir	Total Fir and Pine
		Number of Trees									
A	109.9	352	249	160	283	736	460	217	2,457	685	3,142
B	121.3	739	514	213	291	346	713	104	2,920	80	3,000
C	132.4	220	164	102	117	439	306	71	1,419	1,239	2,658
D	134.9	345	361	112	276	404	962	108	2,568	364	2,932
E	108.5	178	147	70	109	459	796	71	1,830	645	2,475
F	84.9	59	145	92	68	304	384	26	1,078	1,151	2,229
G	95.0	14	14	30	55	132	24	40	309	1,991	2,300
H	153.8	22	70	52	172	357	101	48	822	3,798	4,620
I	126.1	121	49	70	86	348	362	62	1,098	2,727	3,825
J	208.7	28	36	64	329	745	360	279	1,841	3,346	5,187
K	372.1	193	135	277	616	1,763	1,510	404	4,898	3,770	8,668
L	160.4	139	87	82	185	553	700	105	1,851	735	2,586
M	185.1	159	94	64	373	958	943	312	2,903	1,714	4,617
N	261.4	328	193	128	714	1,760	1,681	579	5,383	1,554	6,937
O	171.4	181	58	30	343	894	1,034	375	2,915	1,528	4,443
TOTAL	2425.9	3,078	2,316	1,546	4,017	10,198	10,336	2,801	34,292	25,327	59,619
% Pine		8.98	6.75	4.51	11.71	29.74	30.14	8.17	100.00		
% Total									57.52	42.48	100.00

NOTE: The totals for Pine and Fir do not agree with the totals by D.B.H. classes Tables 9 and 10 due to an accumulated error in rounding off decimal places from the original computations. This difference is so small that it was considered better to show it than to juggle figures to eliminate it in this table.

This note also refers to Tables 3, 13, and 14.

Table 5. Stand per acre. All Types by Compartments. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area in Acres	Dunning's Tree Classes for Pine							Total	D. Fir	Total Fir and Pine
		I	II	III	IV	V	VI	VII			
	Number Trees per Acre										
A	109.9	3.2	2.3	1.4	2.6	6.7	4.2	2.0	22.4	6.2	28.6
B	121.3	6.1	4.2	1.8	2.4	2.8	5.9	.8	24.1	.6	24.7
C	132.4	1.7	1.2	.8	.9	3.3	2.3	.5	10.7	9.4	20.1
D	134.9	2.6	2.7	.8	2.0	3.0	7.1	.8	19.0	2.7	21.7
E	108.5	1.6	1.5	.6	1.0	4.2	7.3	.7	16.9	5.9	22.8
F	84.9	.7	1.7	1.1	.8	3.6	4.5	.3	12.7	13.6	26.3
G	95.0	.2	.2	.3	.7	1.4	.2	.4	3.2	21.0	24.2
H	153.8	.1	.5	.3	1.1	2.3	.7	.3	5.3	24.7	30.0
I	126.1	1.0	.4	.6	.7	2.7	2.8	.5	8.7	21.6	30.3
J	208.7	.1	.2	.3	1.6	3.6	1.7	1.3	18.8	16.0	24.8
K	372.1	.5	.3	.8	1.7	4.7	4.1	1.1	13.2	10.1	23.3
L	160.4	.9	.5	.5	1.2	3.4	4.4	.6	11.5	4.6	16.1
M	185.1	.9	.5	.3	2.0	5.2	5.1	1.7	15.7	9.2	24.9
N	261.4	1.3	.7	.5	2.7	6.8	6.4	2.2	20.6	5.9	26.5
O	171.4	1.1	.3	.2	2.0	5.2	6.0	2.2	17.0	8.9	25.9
Total	2425.9	1.27	.95	.64	1.66	4.21	4.26	1.15	14.14	10.44	24.58
% Pine		8.98	6.72	4.53	11.74	29.77	30.13	8.13	100.0		
% Total									57.53	42.47	100.0

Table 6. Stand Table. Ponderosa Pine, All Types. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6 inch Classes 10-15	16-21	22-27	28-33	34-39	40-Up	Total	% Total
		Number of Trees							
A	109.9	827	704	499	222	141	65	2,458	7.17
B	121.3	1075	784	637	284	98	53	2,930	8.55
C	132.4	350	274	219	294	196	84	1,417	4.13
D	134.9	823	713	385	291	159	195	2,566	7.49
E	108.5	699	348	303	182	132	166	1,830	5.34
F	84.9	231	221	296	159	66	107	1,080	3.15
G	95.0	21	25	117	52	55	39	309	.90
H	153.8	90	131	274	178	112	35	820	2.39
I	126.1	370	203	195	187	118	27	1,100	3.21
J	208.7	256	425	458	386	188	123	1,836	5.36
K	372.1	1173	1055	1132	807	501	227	4,895	14.28
L	160.4	492	458	369	254	193	79	1,845	5.38
M	185.1	793	710	674	406	224	97	2,904	8.47
N	261.4	1424	1404	1337	727	355	130	5,377	15.68
O	171.4	907	800	623	351	180	55	2,916	8.50
Total	2425.9	9531	8255	7518	4780	2718	1482	34,284	100.00
% Total		27.80	24.08	21.93	13.94	7.93	4.32	100.00	
Per Acre Totals		3.9	3.4	3.1	2.0	1.1	.6	14.1	

Table 7. Stand Table. Douglas Fir and Totals for all Types. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6" Classes 10-15 Number	16-21 of	22-27 Trees	28-33	34-39	40-Up	Total Fir	Total Pine & Fir	Fir % Total	Pine & Fir % Total
A	109.9	321	189	85	65	20	5	685	3,143	2.71	5.27
B	121.3	16	47	9		5		77	3,008	.30	5.05
C	132.4	777	244	132	39	37	12	1,241	2,658	4.90	4.46
D	134.9	173	106	64	20	*	*	363	2,929	1.43	4.91
E	108.5	236	146	147	76	28	15	648	2,478	2.56	4.16
F	84.9	594	307	116	71	49	10	1,147	2,227	4.53	3.74
G	95.0	763	468	334	287	104	32	1,988	2,297	7.85	3.85
H	153.8	1,728	1,093	674	221	63	17	3,796	4,616	15.00	7.75
I	126.1	1,526	611	299	117	119	58	2,730	3,830	10.78	6.43
J	208.7	1,583	859	590	219	82	9	3,342	5,178	13.20	8.69
K	372.1	1,914	1,001	595	204	33	19	3,766	8,661	14.89	14.53
L	160.4	397	137	116	54	12	15	731	2,576	2.89	4.32
M	185.1	865	530	266	45	10		1,716	4,620	6.78	7.75
N	261.4	781	518	141	85	25	5	1,555	6,932	6.14	11.63
O	171.4	616	550	263	73	14	14	1,530	4,446	6.04	7.46
Total	2,425.9	12,290	6,806	3,831	1,576	601	211	25,315	59,599	100.00	100.00
% Fir		48.55	26.89	15.13	6.23	2.37	.83	100.00			
Per Acre Total		5.1	2.8	1.6	.6	.2	.1	10.4	24.5		

Table 8. Volume B. M. Totals for all Types by Compartments. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't	Area Acres	Dunning's Tree Classes for Pine I	II	III	IV	V	VI	VII	Total Pine	D. Fir	Total Pine and Fir
		Volume B. M.									
A	109.9	61,938	49,650	120,989	143,745	1,034,859	37,606	37,036	1,485,823	269,790	1,755,613
B	121.3	282,677	171,579	221,083	198,426	562,945	69,260	15,410	1,521,380	26,872	1,548,252
C	132.4	125,469	59,887	159,786	114,289	1,019,427	39,543	26,415	1,544,816	346,289	1,891,105
D	134.9	190,093	172,378	196,370	272,604	1,333,058	139,477	30,205	2,334,185	116,964	2,451,149
E	108.5	50,815	74,927	80,655	97,563	1,285,863	106,019	22,735	1,718,577	322,058	2,040,635
F	84.9	30,297	88,623	128,736	65,294	759,054	79,862	10,013	1,161,879	375,551	1,537,430
G	95.0	10,662	4,941	57,555	43,038	284,416	5,826	16,844	423,282	905,490	1,328,772
H	153.8	9,141	36,732	57,801	167,637	623,065	10,247	13,283	917,906	1,206,937	2,124,843
I	126.1	32,245	23,180	85,064	62,656	568,842	35,647	14,103	821,737	945,268	1,767,005
J	208.7	9,197	18,449	68,422	255,101	1,396,456	79,938	71,824	1,899,387	1,142,879	3,042,266
K	372.1	57,042	52,092	269,238	409,006	3,173,918	232,743	140,310	4,329,349	1,105,855	5,435,204
L	160.4	34,970	42,652	92,621	163,586	1,091,347	120,307	32,563	1,578,046	263,075	1,841,121
M	185.1	51,549	28,965	57,404	220,717	1,489,654	139,461	88,515	2,076,265	446,783	2,523,048
N	261.4	82,741	85,520	128,440	459,619	2,488,707	247,734	157,099	3,649,860	425,102	4,074,962
O	171.4	43,496	21,800	22,163	199,027	1,187,893	154,362	100,056	1,728,797	473,118	2,201,915
Total	2425.9	1,067,332	931,375	1,746,327	2,872,308	18,299,504	1,498,032	776,411	27,191,289	8,372,031	35,563,320
% Pine		3.93	3.42	6.42	10.56	67.30	5.51	2.86	100.00		
% Total									76.46	23.54	100.00

NOTE: Total volumes for both pine and fir differ somewhat from the totals on tables 11 and 12 due to rounding off decimal places from the original computations. These differences are so small a percent of any total that it was considered better to show it than to change the figures in either case.

This note also refers to Table 7, 15, and 16.

Table 9. Volume B. M. Per Acre. Totals for all Types by Compartments. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	I	II	III	IV	V	VI	VII	Total Pine	D. Fir	Total Pine and Fir
					Volume B. M.						
A	109.9	564	452	1,101	1308	9,416	342	337	13,520	2,455	15,975
B	121.3	2,330	1,415	1,823	1636	4,640	571	127	12,542	222	12,764
C	132.4	949	452	1,207	863	7,700	299	200	11,668	2,615	14,283
D	134.9	1,409	1,278	1,456	2020	9,882	1,034	224	17,303	867	18,170
E	108.5	468	691	743	899	11,851	977	210	15,839	2,968	18,807
F	84.9	357	1,044	1,516	769	8,940	941	118	13,685	4,423	18,108
G	95.0	112	52	606	454	2,994	61	177	4,456	9,531	13,987
H	153.8	59	239	376	1090	4,051	67	86	5,968	7,847	13,815
I	126.1	256	184	674	497	4,511	283	112	6,517	7,496	14,013
J	208.7	44	89	328	1222	6,691	383	344	9,101	5,476	14,577
K	372.1	140	140	724	1099	8,530	625	377	11,635	2,972	14,607
L	160.4	218	266	577	1020	6,804	750	203	9,838	1,640	11,478
M	185.1	279	157	310	1192	8,048	753	478	11,217	2,414	13,631
N	261.4	316	327	492	1758	9,521	948	601	13,963	1,626	15,589
O	171.4	254	127	129	1161	6,930	901	584	10,086	2,760	12,846
Total	2425.9	440	384	720	1184	7,543	618	320	11,209	3,451	14,660
% Pine		3.93	3.43	6.42	10.56	67.29	5.51	2.86	100.00		
% Total									76.46	23.54	100.00

Table 10. Volume B. M. Ponderosa Pine. All Types. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6 inch Classes 10-15	16-21	22-27	28-33	34-39	40-Up	Total	% Total
		Volume B. M.							
A	109.9	56,369	216,670	368,996	293,764	315,031	234,989	1,485,819	5.46
B	121.3	72,835	218,345	446,007	351,071	222,986	210,131	1,521,375	5.60
C	132.4	20,810	84,943	167,091	440,044	484,918	347,012	1,544,818	5.68
D	134.9	70,413	234,968	300,100	417,273	373,253	938,184	2,334,191	8.58
E	108.5	43,077	107,857	232,198	263,784	298,566	773,092	1,718,574	6.32
F	84.9	23,719	72,890	226,324	242,020	156,522	440,402	1,161,877	4.27
G	95.0	2,732	6,827	74,908	72,379	131,642	134,794	423,282	1.56
H	153.8	7,762	40,168	221,898	248,205	254,000	145,867	917,900	3.38
I	126.1	26,093	58,102	146,349	253,073	244,876	93,243	821,736	3.02
J	208.7	20,307	131,457	345,576	543,467	416,315	442,267	1,899,389	6.99
K	372.1	104,623	323,696	793,790	1,113,580	1,126,932	866,727	4,329,348	15.92
L	160.4	40,380	139,306	258,782	384,540	449,195	305,844	1,578,047	5.80
M	185.1	67,770	208,999	475,184	545,644	449,256	329,409	2,076,262	7.64
N	261.4	111,436	428,130	937,172	984,342	751,413	437,360	3,649,853	13.42
O	171.4	84,772	248,425	436,665	434,213	379,981	144,743	1,728,799	6.36
Total	2425.9	753,098	2,520,783	5,431,040	6,587,399	6,054,886	5,844,064	27,191,270	100.00
% Total		2.77	9.27	19.97	24.23	22.27	21.49	100.00	
Per Acre Total		310	1,039	2,239	2,716	2,496	2,409	11,209	

Table 11. Volume B. M. Douglas Fir. All Types. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6 inch Classes 10-15	16-21	22-27	28-33	34-39	40-Up	Total Fir	Total Pine and Fir	Fir % Total	Pine & Fir % Total
		Volume B. M.									
A	109.9	25,019	56,026	56,321	83,375	35,172	13,875	269,788	1,755,607	3.22	4.94
B	121.3	1,703	12,351	5,240		7,579		26,873	1,548,248	.32	4.35
C	132.4	50,317	64,248	94,197	40,940	63,078	33,508	346,288	1,891,106	4.14	5.32
D	134.9	15,988	34,088	43,661	22,197	429	602	116,965	2,451,156	1.40	6.89
E	108.5	14,209	45,240	92,445	92,022	44,844	33,294	322,054	2,040,628	3.85	5.74
F	84.9	40,558	85,874	76,473	76,549	74,641	21,454	375,549	1,537,426	4.48	4.32
G	95.0	55,654	133,600	195,742	295,827	162,159	62,508	905,490	1,328,772	10.81	3.74
H	153.8	133,583	301,551	400,513	233,256	95,423	42,609	1,206,935	2,124,835	14.42	5.97
I	126.1	117,485	160,654	175,649	121,034	224,686	145,762	945,270	1,767,006	11.29	4.97
J	208.7	119,759	235,646	379,209	243,992	134,167	30,113	1,142,886	3,042,275	13.65	8.56
K	372.1	136,721	271,135	373,573	214,887	55,501	54,042	1,105,859	5,435,207	13.21	15.28
L	160.4	29,881	36,124	71,524	71,085	18,194	36,265	263,073	1,841,120	3.14	5.18
M	185.1	64,286	147,440	166,433	50,911	17,706		446,776	2,523,038	5.34	7.09
N	261.4	59,450	143,727	85,864	87,394	37,250	11,417	425,102	4,074,955	5.08	11.46
O	171.4	50,479	143,915	147,818	75,735	23,443	31,728	473,118	2,201,917	5.65	6.19
Total	2425.9	915,092	1,871,619	2,364,662	1,709,204	994,272	517,177	8,372,026	35,563,296	100.00	100.00
% Fir		10.93	22.35	28.24	20.42	11.88	6.18	100.00			
Per Acre Total		377	771	975	705	410	213	3,451	14,660		

Table 12. Stand Table. PP/OM Type by Tree Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	Dunnings Tree Classes for Pine I	II	III	IV	V	VI	VII	Total	D. Fir	Total Fir and Pine
		Number of Trees									
A	93.2	245	176	126	223	694	337	209	2,010	511	2,521
B	29.0	155	45	22	42	158	98	44	564	41	605
C	80.7	57	106	76	85	421	184	71	1,000	732	1,732
D	95.7	135	233	74	241	400	711	103	1,897	297	2,194
E	103.9	150	147	70	109	459	772	71	1,778	645	2,423
F	81.0	59	145	92	68	304	384	26	1,078	1,026	2,104
G	46.8	14	14	19	55	86	18	29	235	683	918
H	75.1	14	56	41	144	305	81	42	683	1,596	2,279
I	88.2	97	49	63	62	308	340	59	978	1,608	2,586
J	165.8	23	36	64	296	694	336	240	1,689	2,233	3,922
K	344.3	159	123	239	610	1,751	1,447	400	4,729	3,591	8,320
L	153.7	139	87	82	185	553	700	105	1,851	721	2,572
M	185.1	159	94	64	373	958	943	312	2,903	1,714	4,617
N	261.4	328	193	128	714	1,760	1,681	579	5,383	1,554	6,937
O	171.4	181	58	30	343	894	1,034	375	2,915	1,528	4,443
Total	1975.3	1,915	1,562	1,190	3,550	9,745	9,066	2,665	29,693	18,480	48,173
% Pine		6.45	5.26	4.01	11.96	32.82	30.53	8.98	100.00		
% Total									61.64	38.36	100.00

Table 13. Stand Per Acre. PP/OM Type by Tree Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	Dunnings Tree Classes for Pine I	II	III	IV	V	VI	VII	Total	D. Fir	Total Fir and Pine
		Number of Trees Per Acre									
A	93.2	2.6	1.9	1.4	2.4	7.4	3.6	2.2	21.5	5.5	27.0
B	29.0	5.3	1.6	.8	1.4	5.4	3.4	1.5	19.4	1.4	20.8
C	80.7	.7	1.3	.9	1.1	5.2	2.3	.9	12.4	9.1	21.5
D	95.7	1.4	2.4	.8	2.5	4.2	7.4	1.1	19.8	3.1	22.9
E	103.9	1.4	1.4	.7	1.1	4.4	7.4	.7	17.1	6.2	23.3
F	81.0	.7	1.8	1.1	.8	3.8	4.8	.3	13.3	12.7	26.0
G	46.8	.3	.3	.4	1.2	1.8	.4	.6	5.0	14.6	19.6
H	75.1	.2	.7	.5	1.9	4.1	1.1	.6	9.1	21.2	30.3
I	88.2	1.1	.6	.7	.7	3.5	3.8	.7	11.1	18.2	29.3
J	165.8	.1	.2	.4	1.8	4.2	2.0	1.4	10.1	13.5	23.6
K	344.3	.5	.4	.7	1.8	5.1	4.1	1.2	13.8	10.4	24.2
L	153.7	.9	.6	.5	1.2	3.6	4.5	.7	12.0	4.7	16.7
M	185.1	.9	.5	.3	2.0	5.2	5.1	1.7	15.7	9.2	24.9
N	261.4	1.3	.7	.5	2.7	6.8	6.4	2.2	20.6	5.9	26.5
O	171.4	1.1	.3	.2	2.0	5.2	6.0	2.2	17.0	8.9	25.9
Total	1975.3	.97	.79	.60	1.80	4.93	4.59	1.35	15.03	9.36	24.39
% Pine		6.45	5.26	3.99	11.98	32.80	30.54	8.98			
% Total									61.62	38.38	100.00

Table 14. Stand Table, Ponderosa Pine. PP/OM Type by D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6 inch Classes 10-15	16-21	22-27	28-33	34-39	40-Up	Total	% Total
		Number of Trees							
A	93.2	646	553	427	203	122	60	2,011	6.77
B	29.0	236	129	124	42	15	16	562	1.89
C	80.7	173	182	180	199	188	79	1,001	3.37
D	95.7	600	488	282	193	147	185	1,895	6.38
E	103.9	644	351	302	182	133	166	1,778	5.99
F	81.0	232	222	294	157	66	106	1,077	3.63
G	46.8	20	13	100	27	35	38	233	.78
H	75.1	71	113	221	146	97	35	683	2.30
I	88.2	362	169	168	147	115	19	980	3.30
J	165.8	222	390	416	353	184	124	1,689	5.70
K	344.3	1,111	1,016	1,066	805	502	228	4,728	15.94
L	153.7	492	462	358	265	192	80	1,849	6.24
M	185.1	793	710	674	406	224	97	2,904	9.78
N	261.4	1,424	1,404	1,337	727	335	130	5,377	18.11
O	171.4	907	800	623	351	180	55	2,916	9.82
Total	1975.3	7,933	7,002	6,572	4,203	2,555	1,418	29,683	100.00
% Total		26.72	23.59	22.14	14.16	8.61	4.78	100.00	

Table 15. Stand Table. Douglas Fir. PP/OM Type by D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6 inch Classes 10-15	16-21	22-27	28-33	34-39	40-Up	Total Fir	Total Pine and Fir	Fir % Total	Pine and Fir % Total
		Number of Trees									
A	93.2	228	133	77	49	20	5	512	2,523	2.77	5.24
B	29.0	12	24			5		41	603	.22	1.25
C	80.7	338	200	121	39	25	12	735	1,736	3.98	3.60
D	95.7	159	78	48	12			297	2,192	1.61	4.55
E	103.9	236	146	147	76	28	15	648	2,426	3.51	5.04
F	81.0	516	291	100	55	49	10	1,021	2,098	5.52	4.36
G	46.8	357	135	103	72	18		685	918	3.71	1.91
H	75.1	858	467	219	48	5		1,597	2,280	8.64	4.73
I	88.2	997	354	157	43	43	18	1,612	2,592	8.72	5.38
J	165.8	1,140	534	358	131	63	5	2,231	3,920	12.07	8.14
K	344.3	1,811	955	577	196	33	15	3,587	8,315	19.40	17.26
L	153.7	391	137	116	48	12	15	719	2,568	3.89	5.33
M	185.1	865	530	266	45	10		1,716	4,620	9.28	9.59
N	261.4	781	518	141	85	25	5	1,555	6,932	8.41	14.39
O	171.4	616	550	263	73	14	14	1,530	4,446	8.27	9.23
Total	1975.3	9,305	5,052	2,693	972	350	114	18,486	48,169	100.00	100.00
% Total:		50.33	27.33	14.57	5.26	1.89	.62	100.00			

Table 16. Stand Per Acre. Ponderosa Pine. PP/OM Type by D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Compt.	Area Acres	10-15	16-21	22-27	28-33	34-39	40-Up	Total
				Number of Trees Per Acre				
A	93.2	6.9	6.0	4.6	2.2	1.3	.6	21.6
B	29.0	8.1	4.4	4.3	1.5	.5	.6	19.4
C	80.7	2.1	2.3	2.2	2.5	2.3	1.0	12.4
D	95.7	6.3	5.2	2.9	2.0	1.9	1.9	19.8
E	103.9	6.2	3.4	2.8	1.8	1.3	1.6	17.1
F	81.0	2.9	2.8	3.6	1.9	.8	1.3	13.3
G	46.8	.4	.3	2.1	.6	.8	.8	5.0
H	75.1	.9	1.5	3.0	1.9	1.3	.5	9.1
I	88.2	4.1	1.9	1.9	1.7	1.3	.2	11.1
J	165.8	1.3	2.4	2.5	2.1	1.1	.8	10.2
K	344.3	3.2	3.0	3.1	2.3	1.4	.7	13.7
L	153.7	3.2	3.0	2.3	1.8	1.2	.5	12.0
M	185.1	4.3	3.8	3.7	2.2	1.2	.5	15.7
N	261.4	5.4	5.4	5.1	2.8	1.4	.5	20.6
O	171.4	5.3	4.7	3.6	2.0	1.1	.3	17.0
Total	1975.3	4.0	3.6	3.3	2.1	1.3	.7	15.0

Table 17. Stand Per Acre, Douglas Fir. PP/OM Type by D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6" Classes. 10-15	16-21	22-27	28-33	34-39	40-Up	Total	Total Pine and Fir
		Number of Trees Per Acre							
A	93.2	2.5	1.4	.8	.5	.2	.1	5.5	27.1
B	29.0	.4	.8			.2		1.4	20.8
C	80.7	4.2	2.5	1.5	.5	.3	.1	9.1	21.5
D	95.7	1.7	.8	.5	.1			3.1	22.9
E	103.9	2.3	1.4	1.4	.7	.3	.1	6.2	23.3
F	81.0	6.4	3.6	1.2	.7	.6	.1	12.6	25.9
G	46.8	7.6	2.9	2.2	1.5	.4		14.6	19.6
H	75.1	11.3	6.2	2.9	.6	.1		21.3	30.4
I	88.2	11.3	4.0	1.8	.5	.5	.2	18.3	29.4
J	165.8	6.9	3.1	2.2	.8	.4	.03	13.4	23.6
K	344.3	5.2	2.8	1.7	.6	.1	.04	10.4	24.1
L	153.7	2.5	.9	.8	.3	.1	.1	4.7	16.7
M	185.1	4.7	2.9	1.4	.2	.1		9.3	25.0
N	261.4	3.0	2.0	.5	.3	.1	.02	5.9	26.5
O	171.4	3.6	3.2	1.5	.4	.1	.1	8.9	25.9
Total	1975.3	4.7	2.6	1.4	.5	.2	.05	9.4	24.4

Table 18. Volume B. M. PP/OM Type by Tree Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Dunning's Tree Classes for Pine

Comp't	Area Acres	I	II	III	IV	V	VI	VII	Total	~~Total Pine~~ Douglas Fir	Total Pine and Fir
						Volume B. M.					
A	93.2	37,905	35,555	87,355	116,567	954,279	25,939	34,153	1,291,753	218,810	1,510,563
B	29.0	29,604	8,537	14,935	20,144	210,213	8,446	5,519	297,398	14,601	311,999
C	80.7	21,578	42,575	125,279	83,194	971,731	26,246	26,415	1,297,018	281,438	1,578,456
D	95.7	53,279	117,092	129,335	229,849	1,313,788	105,371	28,981	1,977,695	86,221	2,063,916
E	103.9	50,300	74,927	80,655	97,563	1,285,863	105,200	22,735	1,717,243	322,058	2,039,301
F	81.0	30,297	88,623	128,736	65,294	759,054	79,862	10,013	1,161,879	342,214	1,504,093
G	46.8	10,662	4,941	42,352	43,038	215,797	2,819	14,104	333,713	232,563	566,276
H	75.1	5,187	29,749	43,560	138,019	563,485	7,941	10,669	798,610	399,111	1,197,721
I	88.2	22,054	23,180	77,826	41,023	499,332	29,509	12,519	705,443	432,509	1,137,952
J	165.8	7,175	18,449	68,422	227,934	1,329,583	74,222	66,282	1,792,067	718,684	2,510,751
K	344.3	42,178	45,552	233,274	404,662	3,152,202	226,101	138,006	4,241,975	1,060,410	5,302,385
L	153.7	34,970	42,652	92,621	163,586	1,091,347	120,307	32,563	1,578,046	254,533	1,832,579
M	185.1	51,549	28,965	57,404	220,717	1,489,654	139,461	88,515	2,076,265	446,783	2,523,048
N	261.4	82,741	85,520	128,440	459,619	2,488,707	247,734	157,099	3,649,860	425,102	4,074,962
O	171.4	43,496	21,800	22,163	199,027	1,187,893	154,362	100,056	1,728,797	473,118	2,201,915
Total	1975.3	522,975	668,117	1,332,357	2,510,236	17,512,928	1,353,520	747,629	24,647,762	5,708,155	30,355,917
% Pine		2.12	2.71	5.41	10.18	71.06	5.49	3.03	100.00		
% Total									81.20	18.80	100.00

See Note on Table 5.

Table 19. Volume B. M. Per Acre. PP/OM Type by Tree Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	Dunning's Tree Classes for Pine I	II	III	IV	V	VI	VII	Total Pine	D. Fir	Total Pine and Fir
		Volume B. M. Per Acre									
A	93.2	407	381	937	1,251	10,240	278	366	13,860	2,348	16,208
B	29.0	1,021	294	515	695	7,249	291	190	10,255	503	10,758
C	80.7	267	528	1,552	1,032	12,041	325	327	16,072	3,487	19,559
D	95.7	557	1,224	1,351	2,402	13,728	1101	303	20,666	901	21,567
E	103.9	484	721	776	939	12,376	1012	219	16,527	3,100	19,627
F	81.0	374	1,094	1,589	806	9,371	986	124	14,344	4,225	18,569
G	46.8	228	105	905	919	4,611	62	301	7,131	4,969	12,100
H	75.1	69	396	580	1,838	7,503	106	142	10,634	5,314	15,948
I	88.2	250	263	882	465	5,661	335	142	7,998	4,904	12,902
J	165.8	43	111	413	1,375	8,019	448	400	10,809	4,335	15,144
K	344.3	122	132	678	1,175	9,155	657	401	12,320	3,080	15,400
L	153.7	228	277	603	1,064	7,100	783	212	10,267	1,656	11,923
M	185.1	279	157	310	1,192	8,048	753	478	11,217	2,414	13,631
N	261.4	316	327	492	1,758	9,521	948	601	13,963	1,626	15,589
O	171.4	254	127	129	1,161	6,930	901	584	10,086	2,760	12,846
Total	1975.3	268	338	674	1,271	8,865	684	378	12,478	2,890	15,368
% Pine		2.15	2.71	5.40	10.18	71.05	5.48	3.03	100.00		
% Total									81.19	18.81	100.00

Table 20. Volume B. M. Ponderosa Pine. PP/OM Type by D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6 inch Classes 10-15	16-21	22-27	28-33	34-39	40-Up	Total	% Total
		Volume B. M.							
A	93.2	42,766	172,817	322,813	267,009	271,574	214,772	1,291,751	5.24
B	29.0	15,043	41,027	91,856	52,084	30,322	67,067	297,399	1.21
C	80.7	12,115	53,871	138,995	319,697	444,708	327,635	1,297,021	5.26
D	95.7	53,756	168,270	213,768	291,811	352,509	897,587	1,977,701	8.02
E	103.9	41,743	107,857	232,198	263,784	298,566	773,092	1,717,240	6.97
F	81.0	23,719	72,890	226,324	242,020	156,522	440,402	1,161,877	4.71
G	46.8	2,732	4,087	66,122	37,871	88,107	134,794	333,713	1.35
H	75.1	5,811	35,581	179,386	209,120	222,839	145,867	798,604	3.24
I	88.2	25,136	47,198	124,559	202,928	238,694	66,926	705,441	2.86
J	165.8	17,218	121,450	318,171	489,307	403,654	442,267	1,792,067	7.27
K	344.3	100,041	309,296	766,930	1,082,409	1,116,572	866,727	4,241,975	17.22
L	153.7	40,380	139,306	258,782	384,540	449,195	305,844	1,578,047	6.40
M	185.1	67,770	208,999	475,184	545,644	449,256	329,409	2,076,262	8.42
N	261.4	111,436	428,130	937,172	984,342	751,413	437,360	3,649,853	14.82
O	171.4	84,772	248,425	436,665	434,213	379,981	144,743	1,728,799	7.01
Total	1975.3	644,438	2,159,204	4,788,925	5,806,779	5,653,912	5,594,492	24,647,750	100.00
% Total		2.61	8.76	19.43	23.56	22.94	22.70	100.00	

Table 21. Volume B. M. Douglas Fir. PP/OM Type by D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6 inch Classes 10-16	16-21	22-27	28-33	34-39	40-Up	Total Fir	Total Pine & Fir	Fir % Total	Pine & Fir % Total
		Volume B. M.									
A	93.2	17,303	38,577	51,543	62,339	35,172	13,875	218,809	1,510,560	3.83	4.98
B	29.0	1,008	6,015			7,579		14,602	312,001	.26	1.03
C	80.7	25,363	54,316	87,501	40,940	39,808	33,508	281,436	1,578,457	4.93	5.20
D	95.7	14,913	23,258	33,563	14,487			86,221	2,063,922	1.51	6.80
E	103.9	14,209	45,240	92,445	92,022	44,844	33,294	322,054	2,039,294	5.64	6.72
F	81.0	38,171	81,303	68,470	58,172	74,641	21,454	342,211	1,504,088	6.00	4.95
G	46.8	26,658	40,609	64,454	64,602	36,239		232,562	566,275	4.06	1.86
H	75.1	73,414	133,522	127,170	55,768	9,238		399,112	1,197,716	6.99	3.95
I	88.2	77,342	91,676	92,401	39,728	83,834	47,531	432,512	1,137,953	7.58	3.75
J	165.8	82,944	146,080	227,278	150,055	100,101	12,230	718,688	2,510,755	12.59	8.27
K	344.3	130,482	259,447	363,000	205,539	55,501	46,442	1,060,411	5,302,386	18.58	17.47
L	153.7	29,700	36,124	71,524	62,724	18,194	36,265	254,531	1,832,578	4.46	6.04
M	185.1	64,286	147,440	166,433	50,911	17,706		446,776	2,523,038	7.83	8.31
N	261.4	59,450	143,727	85,864	87,394	37,250	11,417	425,102	4,074,955	7.45	13.42
O	171.4	50,479	143,915	147,818	75,735	23,443	31,728	473,118	2,201,917	8.29	7.25
Total	1975.3	705,722	1,391,249	1,679,464	1,060,416	583,550	287,744	5,708,145	30,355,895	100.00	100.00
%Total		12.36	24.38	29.42	18.58	10.22	5.04	100.00			

Table 22. Volume B. M. Per Acre, Ponderosa Pine. PP/OM Type by D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division

Comp't.	Area Acres	10-15	16-21	22-27	28-33	34-39	40-Up	Total
				Volume B. M. Per Acre.				
A	93.2	459	1,854	3,464	2,865	2,913	2,305	13,860
B	29.0	519	1,415	3,167	1,796	1,045	2,313	10,255
C	80.7	150	668	1,722	3,961	5,511	4,060	16,072
D	95.7	562	1,758	2,234	3,049	3,684	9,379	20,666
E	103.9	402	1,038	2,235	2,539	2,874	7,440	16,528
F	81.0	293	900	2,794	2,988	1,932	5,437	14,344
G	46.8	58	87	1,414	809	1,883	2,880	7,131
H	75.1	77	474	2,389	2,785	2,967	1,942	10,634
I	88.2	285	535	1,412	2,301	2,706	759	7,998
J	165.8	104	733	1,919	2,951	2,435	2,667	10,809
K	344.3	291	898	2,228	3,144	3,243	2,517	12,321
L	153.7	263	906	1,684	2,502	2,922	1,990	10,267
M	185.1	366	1,129	2,567	2,948	2,427	1,780	11,217
N	261.4	426	1,638	3,585	3,766	2,875	1,673	13,963
O	171.4	495	1,449	2,548	2,533	2,217	844	10,086
Total	1975.3	326	1,094	2,424	2,940	2,862	2,832	12,478

Table 23. Volume B. M. Per Acre. Douglas Fir. PP/OM Type by D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6" Classes 10-15	16-21	22-27	28-33	34-39	40-Up	Total D.F.	Total Fir and Pine
		Volume B. M. Per Acre							
A	93.2	185	414	554	669	377	149	2,348	16,208
B	29.0	35	207			261		504	10,759
C	80.7	314	673	1,084	508	493	415	3,487	19,559
D	95.7	156	243	351	151			901	21,567
E	103.9	137	435	890	886	432	320	3,100	19,628
F	81.0	471	1,004	846	718	921	265	4,225	18,569
G	46.8	570	868	1,377	1,380	774		4,969	12,100
H	75.1	978	1,778	1,693	742	123		5,314	15,948
I	88.2	877	1,039	1,048	450	951	539	4,904	12,902
J	165.8	500	881	1,371	905	604	74	4,335	15,144
K	344.3	379	754	1,054	597	161	135	3,080	15,401
L	153.7	193	235	466	408	118	236	1,656	11,923
M	185.1	347	797	899	275	96		2,414	13,631
N	261.4	227	550	328	334	143	44	1,626	15,589
O	171.4	294	840	862	442	137	185	2,760	12,846
Total	1975.3	357	704	850	537	295	146	2,890	15,368

Table 24. Stand Table for Other Types. By Dunnings Tree Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	Dunnings Tree Classes for Pine I	II	III	IV	V	VI	VII	Total Pine	D. Fir	Total Pine and Fir
		Number of Trees PP/MM									
A	8.5	29	31	19	45	36	61	8	229	162	391
B	38.8	206	141	89	156	116	258	55	1,021		1,021
K	27.8	34	12	38	6	12	63	4	169	179	348
Total	75.1	269	184	146	207	164	382	67	1,419	341	1,760
		PP/IM									
A	5.2	62	42	15	15	6	62		202		202
B	53.5	378	328	102	93	72	357	5	1,335	39	1,374
C	37.0	143	42	26	32	14	91		348	38	386
D	28.2	192	128	27	35		242		624	7	631
Total	123.9	775	540	170	175	92	752	5	2,509	84	2,593
		DF/OM									
F	3.9									125	125
G	48.2			11		46	6	11	74	1,308	1,382
H	74.7	8	14	11	28	52	20	6	139	2,202	2,341
I	33.6	24		7	24	40	22	3	120	1,119	1,239
J	42.9	5			33	51	24	39	152	1,113	1,265
Total	203.3	37	14	29	85	189	72	59	485	5,867	6,352

Table 25. Stand Per Acre for Other Types. By Dunnings Tree Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	Dunnings Tree Classes for Pine I	II	III	IV	V	VI	VII	Total	D. Fir	Total Pine and Fir
		Number of Trees Per Acre PP/MM									
A	8.5	3.4	3.6	2.2	5.3	4.2	7.2	1.0	26.9	19.1	46.0
B	38.8	5.3	3.6	2.4	4.0	3.0	6.6	1.4	26.3		26.3
K	27.8	1.2	.4	1.4	.2	.4	2.3	.2	6.1	6.4	12.5
Total	75.1	3.6	2.4	1.9	2.8	2.2	5.1	.9	18.9	4.5	23.4
		PP/IM									
A	5.2	11.9	8.0	2.9	2.9	1.2	11.9		38.8		38.8
B	53.5	7.1	6.1	1.9	1.7	1.4	6.7	.1	25.0	.7	25.7
C	37.0	3.9	1.1	.7	.9	.4	2.4		9.4	1.0	10.4
D	28.2	6.8	4.5	1.0	1.2		8.6		22.1	.3	22.4
Total	123.9	6.2	4.3	1.4	1.4	.7	6.1	.1	20.2	.7	20.9
		DF/OM									
F	3.9									32.0	
G	48.2			.2		1.0	.1	.2	1.5	27.2	28.7
H	74.7	.1	.2	.1	.4	.7	.3	.1	1.9	29.4	31.3
I	33.6	.7		.2	.7	1.2	.7	.1	3.6	33.3	36.9
J	42.9	..1			.8	1.2	.6	.9	3.6	25.9	29.5
Total	203.3	.2	.1	.1	.4	.9	.3	.3	2.3	28.9	31.2

Table 26. Stand Table. Other Types. Ponderosa Pine By D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6" Classes 10-15	16-21	22-27	28-33	34-39	40-Up	Total
		Number of Trees PP/MM						
A	8.5	73	80	35	19	12	5	224
B	38.8	378	320	194	94	18	19	1,023
K	27.8	58	46	34	25	4		167
Total	75.1	509	446	263	138	34	24	1,414
		PP/IM						
A	5.2	93	67	36		6		202
B	53.5	461	333	313	146	66	16	1,335
C	37.0	134	70	38	89	8	6	345
D	28.2	213	214	95	82	12	7	623
Total	123.9	901	684	482	317	92	29	2,505
		DF/OM						
F	3.9							
G	48.2		11	17	25	21		74
H	74.7	19	18	51	32	16		136
I	33.6	9	33	27	39	3	8	119
J	42.9	34	35	40	38	6		153
Total	203.3	62	97	135	134	46	8	482

Table 27. Stand Table. Other Types. Douglas Fir By D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6" Classes. 10-15	16-21	22-27	28-33	34-39	40-Up	Total	Total Pine and Fir
		Number of Trees PP/MM							
A	8.5	81	56	8	16			162	386
B	38.8								1,023
K	27.8	103	46	18	8		4	179	346
Total	75.1	184	102	26	24		4	341	1,755
		PP/IM							
A	5.2								202
B	53.5	4	23	9				39	1,374
C	37.0	18	8			12		38	383
D	28.2		7					7	630
Total	123.9	22	38	9		12		84	2,589
		DF/OM							
F	3.9	78	16	16	16			125	125
G	48.2	406	333	231	215	86	32	1,308	1,382
H	74.7	870	626	455	173	58	17	2,202	2,338
I	33.6	529	257	142	74	76	40	1,119	1,238
J	42.9	443	325	232	88	19	4	1,113	1,266
Total	203.3	2,326	1,557	1,076	566	239	93	5,867	6,349

Table 28. Stand Per Acre. Other Types. Ponderosa Pine By D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6" Classes 10-15	16-21	22-27	28-33	34-39	40-Up	Total
		Number of Trees Per Acre						
		PP/MM						
A	8.5	8.6	9.4	4.2	2.2	1.4	.6	26.4
B	38.8	9.8	8.2	5.0	2.4	.5	.5	26.4
K	27.8	2.1	1.7	1.2	.9	.1		6.0
Total	75.1	6.8	5.9	3.5	1.8	.5	.3	18.8
		PP/IM						
A	5.2	17.9	12.9	6.9		1.1		38.8
B	53.5	8.6	6.2	5.9	2.7	1.2	.3	24.9
C	37.0	3.6	1.9	1.0	2.4	.2	.2	9.3
D	28.2	7.6	7.6	3.4	2.9	.4	.2	22.1
Total	123.9	7.3	5.5	3.9	2.6	.7	.2	20.2
		DF/OM						
F	3.9							
G	48.2		.2	.4	.5	.4		1.5
H	74.7	.3	.2	.7	.4	.2		1.8
I	33.6	.3	1.0	.8	1.2	.1	.2	3.6
J	42.9	.8	.8	1.0	.9	.1		3.6
Total	203.3	.3	.5	.7	.7	.2	*	2.4

Table 29. Stand Per Acre. Other Types. Douglas Fir by D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6" Classes. 10-15	16-21	22-27	28-33	34-39	40-Up	Total	Total Pine and Fir
		Number of Trees Per Acre							
		PP/MM							
A	8.5	9.6	6.6	.9	1.9			19.0	45.4
B	38.8								26.4
K	27.8	3.7	1.7	.6	.3		.1	6.4	12.4
Total	75.1	2.5	1.5	.4			.1	4.5	23.3
		PP/IM							
A	5.2								38.8
B	53.5	.1	.4	.2				.7	25.6
C	37.0	.5	.2			.3		1.0	10.3
D	28.2	.2						.2	22.3
Total	123.9	.2	.3	.1		.1		.7	20.9
		DF/OM							
F	3.9	20.0	4.0	4.0	4.0			32.0	32.0
G	48.2	8.4	6.9	4.8	4.5	1.8	.7	27.1	28.6
H	74.7	11.6	8.4	6.2	2.3	.8	.2	29.5	31.3
I	33.6	15.8	7.6	4.2	2.2	2.3	1.2	33.3	36.9
J	42.9	10.3	7.6	5.4	2.1	.4	.1	25.9	29.5
Total	203.3	11.4	7.6	5.3	2.8	1.2	.5	28.8	31.2

Table 30. Volume B. M. Other Types. By Dunnings Tree Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	Tree Classes I	II	III	IV	V	VI	VII	Total Pine	D. Fir	Total Pine and Fir
			Volume: B. M. PP/MM								
A	8.5	9,154	6,950	22,454	22,025	69,005	7,257	2,883	139,728	50,121	189,849
B	38.8	39,281	34,703	71,580	102,984	200,329	21,668	8,154	478,699		478,699
K	27.8	9,864	6,540	35,964	4,344	21,716	6,642	2,304	87,374	45,445	132,819
Total	75.1	58,299	48,193	129,998	129,353	291,050	35,567	13,341	705,801	95,566	801,367
			PP/IM								
A	5.2	14,591	7,145	11,180	5,153	11,575	4,410		54,054		54,054
B	53.5	213,792	128,339	134,568	75,298	152,403	39,146	1,737	745,283	12,271	757,554
C	37.0	101,433	12,852	34,507	31,095	41,988	11,378		233,253	26,494	259,747
D	28.2	121,256	55,286	52,958	42,755		33,145		305,400	4,905	310,305
Total	123.9	451,072	203,622	233,213	154,301	205,966	88,079	1,737	1,337,990	43,670	1,381,660
			DF/OM								
F	3.9									33,337	33,337
G	48.2			15,203		68,619	3,007	2,740	89,569	672,927	762,496
H	74.7	3,954	6,983	14,241	29,618	59,580	2,306	2,614	119,296	807,826	927,122
I	33.6	10,191		7,238	21,633	69,510	6,138	1,584	116,294	512,759	629,053
J	42.9	2,022			27,167	66,873	5,716	5,542	107,320	424,195	531,515
Total	203.3	16,167	6,983	36,682	78,418	264,582	17,167	12,480	432,479	2,451,044	2,883,523

Table 31. Volume Per Acre. Other Types. By Dunning's Tree Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	Dunning's Tree Classes I	II	III	IV	V	VI	VII	Total	D. Fir	Total Pine and Fir
		Volume B. M. Per Acre PP/MM									
A	8.5	1,077	818	2,642	2,590	8,118	854	339	16,438	5,897	22,335
B	38.8	1,012	894	1,846	2,654	5,164	558	210	12,338		12,338
K	27.8	355	235	1,294	156	781	239	83	3,143	1,635	4,778
Total	75.1	776	642	1,731	1,722	3,875	474	178	9,398	1,272	10,670
		PP/IM									
A	5.2	2,806	1,374	2,150	991	2,226	848		10,395		10,395
B	53.5	3,996	2,399	2,515	1,407	2,849	732	32	13,930	230	14,160
C	37.0	2,741	347	933	840	1,135	308		6,304	716	7,020
D	28.2	4,300	1,960	1,878	1,516		1,176		10,830	174	11,004
Total	123.9	3,642	1,643	1,882	1,245	1,662	711	14	10,799	352	11,151
		DF/OM									
F	3.9									8,548	8,548
G	48.2			315		1,424	62	57	1,858	13,961	15,819
H	74.7	53	94	190	396	798	31	35	1,597	10,814	12,411
I	33.6	303		215	644	2,069	183	47	3,461	15,261	18,722
J	42.9	47			633	1,559	134	129	2,502	9,888	12,390
Total	203.3	80	34	180	386	1,301	84	62	2,127	12,056	14,183

Table 32. Volume B. M. Other Types. Ponderosa Pine By D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6" Classes. 10-15	16-21	22-27	28-33	34-39	40-Up	Total
		Volume B. M. PP/MM						
A	8.5	7,103	28,511	25,258	26,756	31,882	20,217	139,727
B	38.8	27,039	81,254	120,754	132,127	34,266	83,258	478,698
K	27.8	4,582	14,400	26,860	31,171	10,360		87,373
Total	75.1	38,724	124,165	172,872	190,054	76,508	103,475	705,798
		PP/IM						
A	5.2	6,209	15,345	20,925		11,575		54,054
B	53.5	30,035	96,782	241,176	180,705	136,774	59,806	745,278
C	37.0	5,620	25,311	28,096	132,238	22,611	19,377	233,253
D	28.2	15,695	68,962	72,401	106,271	20,744	21,327	305,400
Total	123.9	57,559	206,400	362,598	419,214	191,704	100,510	1,337,985
		DF/OM						
F	3.9							
G	48.2		2,740	8,786	34,508	43,535		89,569
H	74.7	1,951	8,051	39,047	39,085	31,161		119,295
I	33.6	957	10,904	21,790	50,144	6,182	26,317	116,294
J	42.9	3,089	10,007	27,405	54,160	12,661		107,316
Total	203.3	5,997	31,702	97,028	177,897	93,539	26,317	432,474

Table 33. Volume B. M. Other Types. Douglas Fir by D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6" Classes 10-15	16-21	22-27	28-33	34-39	40-Up	Total Fir	Total Pine and Fir
		Volume B. M. PP/MM							
A	8.5	6,856	17,449	4,778	21,036			50,119	189,846
B	38.8								478,698
K	27.8	6,239	11,688	10,573	9,348		7,600	45,448	132,821
Total	75.1	13,095	29,137	15,351	30,384		7,600	95,567	801,365
		PP/IM							
A	5.2								54,054
B	53.5	695	6,336	5,240				12,271	757,549
C	37.0	629	2,595			23,270		26,494	259,747
D	28.2		4,905					4,905	310,305
Total	123.9	1,324	13,836	5,240		23,270		43,670	1,381,655
		DF/OM							
F	3.9	2,387	4,571	8,003	18,377			33,338	33,338
G	48.2	28,996	92,991	131,288	231,225	125,920	62,508	672,928	762,497
H	74.7	60,169	168,029	273,343	177,488	86,185	42,609	807,823	927,118
I	33.6	40,143	68,978	83,248	81,306	140,852	98,231	512,758	629,052
J	42.9	36,815	89,566	151,931	93,937	34,066	17,883	424,198	531,514
Total	203.3	168,510	424,135	647,813	602,333	387,023	221,231	2,451,045	2,883,519

Table 34. Volume B. M. Per Acre. Ponderosa Pine By D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6" Classes. 10-15	16-21	22-27	28-33	34-39	40-Up	Total
		Volume B. M. Per Acre. PP/MM						
A	8.5	836	3,354	2,972	3,148	3,750	2,378	16,438
B	38.8	697	2,094	3,112	3,406	883	2,146	12,338
K	27.8	165	518	966	1,121	373		3,143
Total	75.1	516	1,652	2,302	2,531	1,019	1,378	9,398
		PP/IM						
A	5.2	1,194	2,951	4,024		2,226		10,395
B	53.5	561	1,809	4,508	3,378	2,556	1,118	13,930
C	37.0	152	684	759	3,574	611	524	6,304
D	28.2	557	2,445	2,568	3,768	736	756	10,830
Total	123.9	465	1,666	2,926	3,384	1,547	811	10,799
		DF/OM						
F	3.9							
G	48.2		57	182	716	903		1,858
H	74.7	26	108	523	523	417		1,597
I	33.6	28	324	648	1,493	184	784	3,461
J	42.9	72	233	639	1,263	295		2,502
Total	203.3	29	156	477	876	460	129	2,127

Table 35. Volume B. M. Per Acre. Douglas Fir By D. B. H. Classes. Boise Basin Experimental Forest, Bannock Cr. Division.

Comp't.	Area Acres	D. B. H. 6" Classes. 10-15	16-21	22-27	28-33	34-39	40-Up	Total Fir	Total Fir and Pine
				Volume B. M. Per Acre.					
				PP/MM					
A	8.5	807	2,052	562	2,475			5,896	22,334
B	38.8								12,338
K	27.8	224	420	380	336		273	1,635	4,778
Total	75.1	174	388	204	405		101	1,272	10,670
				PP/IM					
A	5.2								10,395
B	53.5	13	119	98				230	14,160
C	37.0	17	70			629		716	7,020
D	28.2		174					174	11,004
Total	123.9	11	111	42		188		352	11,151
				DF/OM					
F	3.9	612	1,172	2,052	4,712			8,548	8,548
G	48.2	602	1,929	2,724	4,797	2,612	1,297	13,961	15,819
H	74.7	805	2,250	3,659	2,376	1,154	570	10,814	12,411
I	33.6	1,195	2,052	2,478	2,420	4,192	2,924	15,261	18,722
J	42.9	858	2,088	3,541	2,190	794	417	9,888	12,390
Total	203.3	829	2,086	3,186	2,963	1,904	1,088	12,056	14,183